



DECLARATION OF JOSEPH H. CHILCOTE

I, JOSEPH H. CHILCOTE, declare:

1. I am presently retired and reside at 3710 Lee Highway, Arlington, Virginia 22207.

2. From 1942 until my retirement in 1964, I was employed by the Department of the Navy, Bureau of Ships (later Naval Sea Systems Command), Materials Standards Branch as a project engineer. In that capacity I was responsible for consulting with industry and drafting procurement specifications for a wide variety of materials, including thermal insulation materials.

3. Because time, resource and cost constraints made it impracticable for the Navy to develop the detailed expertise necessary to independently undertake its own product development, when my office was required by other Navy activities to procure a product or material, we invariably consulted with industry to determine product availability from preexisting commercial sources. We regularly met with technical or sales representatives from various companies, including those from insulation manufacturers such as Raybestos-Manhattan, Inc., Johns-Manville and Keasby-Mattison Corporation, who often initiated such contacts. Such companies sent representatives to Washington, D.C. to meet with us to discuss their products and product capabilities and to provide samples for suitability testing at our Engineering Experiment Station at Annapolis, Maryland. I relied on the



specific and comprehensive knowledge so provided re: their particular product lines because my responsibility for broad ranging and diverse materials precluded me from acquiring such information quickly in any other manner. Moreover, we wanted to adapt our needs and our specifications wherever possible to products and materials already commercially available in order to facilitate acquisition and to save time and money otherwise required for development. This was invariably true with respect to thermal insulation materials where consultation with industry experts was regularly accomplished with a view towards fully utilizing available industry expertise and materials in fulfilling the needs of the Navy.

4. In consulting with industry and in receiving industry comments on proposed military specifications, I frequently received correspondence from both individual manufacturers and trade associations. Hereto attached as Exhibits A-D are true copies of some such correspondence received from Raybestos-Manhattan, Inc. and from the Asbestos Textile Institute. Exhibit A consists of a letter to me from Raybestos-Manhattan, Inc. transmitting a copy of a letter dated May 14, 1978, from Raybestos-Manhattan reciting arrangements made with a private shipyard to furnish a sample of asbestos cloth manufactured by Raybestos-Manhattan and "under evaluation" by the Navy for inclusion in Federal Specification SS-C-466 (Cloth, Thread and Tape - Asbestos). Exhibit B is

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a December 24, 1958 letter to me from Raybestos-Manhatta reciting arrangements to submit a sample of the same cloth. The letter also furnishes manufacturing specifications for the cloth and recommends amendment of the relevant government specifications (including SS-C-466) to include their product. Exhibit C is a copy of a letter I received from Raybestos-Manhattan, dated March 29, 1969, acknowledging receipt of an interim revision of SS-C-466 submitted to it for comment, suggesting minor changes and advising that Raybestos-Manhattan would furnish further comment to the Asbestos Textile Institute which would reply on behalf of the industry. Exhibit D is the composite industry comment submitted by the Asbestos Textile Institute by letter dated April 30, 1963.

5. Following this process of consulting with industry and obtaining its comments and product samples for testing and comparison, we described the best commercially available products for desired applications and uses in terms of their performance characteristics. They were drafted to require specific material compositions only in those few instances where the product described in such specification was the only product available on the market which met the performance requirements. Specifications were drafted in this manner to permit the widest possible number of companies to qualify their products for government procurement and thus enhance cost competition.

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6. The above-described working relationship maintained with industry continued throughout my tenure with the Department of the Navy.

I declare under penalty of perjury that the foregoing is true and correct. Executed on July 9, 1981.

*Joseph H. Chilcote*  
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JOSEPH H. CHILCOTE

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RAYBLSTOS-MANHATTAN, INC.

ASBESTOS TEXTILE DIVISION  
Manheim, Pennsylvania



14 May 1958

Navy Department  
Bureau of Ships  
Washington 25, D.C.

Attention: Mr. Joseph Chilcote - Code 344

Gentlemen:

The New York Shipbuilding Corporation are interested in our style 20P070 wet brushed cloth for use as a lagging cloth. They have asked us whether this cloth has Navy approval and we have answered them per copy attached. We trust that our explanation meets with your approval.

Sincerely yours,

J. A. VETTES, JR. - MANAGER

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ENCLOSURE ATTACHED IN 22

5190293-50

EXHIBIT A

THIS DOCUMENT CONTAINS INFORMATION OF A CONFIDENTIAL NATURE AND IS NOT TO BE RELEASED OR DISCLOSED TO THE PUBLIC OR TO ANY OTHER PERSON OR ENTITY WITHOUT THE EXPRESS WRITTEN PERMISSION OF THE BUREAU OF SHIPS, NAVY DEPARTMENT, WASHINGTON, D.C. 20374

COPY

RAYBESTOS MANHATTAN, INC.  
Asbestos Textile Division  
MANHATTAN, PA.

14 May 1958

New York Shipbuilding Corporation  
Camden, New Jersey

Attention: Mr. Earl Wilmoth - Buyer

Dear Mr. Wilmoth:

We wish to thank you for the courtesies extended our Mr. M. M. Gibson when he called at your office last week. At his request we are pleased to enclose a copy of our price page 4N dated 21 March 1958 covering the various styles of asbestos cloth described by Federal Spec. SS-C-466. We hope you will find this schedule a useful addition to your records.

At Mr. Gibson's suggestion we are arranging to send to your personal attention under separate cover a 5-yd. sample of our style 20P070 cloth on which we are pleased to quote as follows:-

ASBESTOS CLOTH IN ROLL 40" X 100 YDS.

R/M Style	20P070
ASTM Grade	Underwriters
Finish	Wet Brushed
Weight Sq. Yd.	.70 lbs. (+ 5%)
Price Sq. Yd.	\$ 1.38
Price Sq. Ft.	15-1/3¢

Terms, 15 10th prox., net 30th prox. for acceptance in 15 days and shipments prior to 30 June 1958.

Freight prepaid and allowed from N. Charleston, S.C. on shipments of 200 lbs. and over.

The U. S. Navy has had a fabric of this construction under evaluation for sometime. They have not as yet added a .70 lb. cloth to Spec. SS-C-466A. We understand, however, that they have about decided to make such an addition to this specification. It would therefore seem quite possible that if you would apply to the Bureau of Naval Stores for authorization to use a fabric to the above description the Bureau would approve the usage for certain applications.

-Continued-

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Page two

We look forward with interest to receipt of your comments on  
sample submitted.

Very truly yours,

J. A. BETTES, JR. - MANAGER  
nh

cc-  
Mr. J. P. Chilcote - Buships  
J. A. Brown, Jr.  
M. H. Gibson  
J. W. Frampton, Jr.

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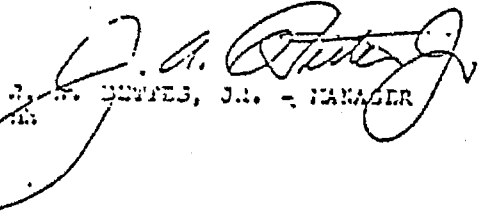
Page two

We invite your particular attention to the proposed warp and filling tensiles, both before and after the heating test. These tensiles may be somewhat higher than some usages demand. However, an Underwriters grade asbestos fabric weighing .70 pounds per square yard, if properly manufactured, should achieve at least the above suggested minimum average tensiles. To put the matter another way, if the cloth does not meet these minimums it is deficient in some manner. We, therefore, recommend the inclusion of at least these minimum tensiles in order to insure delivery of quality material under C.S.S.O. contracts.

We believe the above described cloth will do a wholly satisfactory job for many applications where grade A cloth is now used. The weight reduction from 1.40 lbs. sq. yd. to .70 lbs. sq. yd. would represent a very appreciable tonnage saving on a large carrier. However, we also believe that some measure of control should be established so that grade A class 2, grade A class 5 and the proposed fabric are NOT used indiscriminately. If there is a need for all three fabrics in the specification, there is also a need for proper selection of the fabric in accordance with the service requirement.

We look forward with keen interest to receipt of your comments on sample submitted. If you would like us to send a trial yardage to the Engineering Experiment Station at Annapolis for evaluation, we will be pleased to do so.

Sincerely yours,

  
J. A. DWYER, JR. - MANAGER

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R. BESTOS-MANHATTAN INC.

ASBESTOS TEXTILE DIVISION

Manheim, Pennsylvania



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29 March 1963

Department of the Navy  
Bureau of Ships  
Washington 25, D. C.

Attn: Mr. F. M. Cantt, Head  
Specifications & Standardization Branch  
Technical Materials Division

Subj: Your File 4121/SS-C-466  
(FSC 5640)  
Ser 621-70

Gentlemen:

This will acknowledge and thank you for your letter dated 8 enclosing two copies of Interim Federal Specification SS-C- (NAVY-Ships) dated 19 June 1962. As you probably know, Ray Manhattan will send its official comments to Dr. M. C. Shaw Asbestos Textile Institute on this Interim Revision. Dr. S will reply to the Bureau on behalf of the industry.

In addition to any technical revisions which may be recomme the writer would like to suggest a minor addition to Table in paragraph 3.3.6.1. You will note in all your other tabl the several weights of cloth are differentiated by style nu I think it would be well to add style numbers to Table 1X a gested by the red pencil changes to the enclosed price page dated 16 August 1962.

My own personal opinion is that there is no real need for n separate tables in this specification. In my opinion the s cification would be a lot easier to use and to read if all the fabrics were listed in one table, again similar to our page 4X.

We thank you for the opportunity to review this specificati and hope the above suggestions will be found helpful.

Sincerely yours,

*J. A. Duffles, Jr.*  
J. A. DUFFLES, JR. - MANAGER  
R. BESTOS-MANHATTAN INC.

EXHIBIT C

ALL RIGHTS ARE RESERVED BY THE UNITED STATES GOVERNMENT. THIS DOCUMENT IS THE PROPERTY OF THE UNITED STATES GOVERNMENT AND IS LOANED TO YOUR AGENCY. IT IS TO BE RETURNED TO THE UNITED STATES GOVERNMENT WHEN REQUESTED. IT IS NOT TO BE REPRODUCED OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, ELECTRONIC OR MECHANICAL, INCLUDING PHOTOCOPYING, RECORDING, OR BY ANY INFORMATION STORAGE AND RETRIEVAL SYSTEM, WITHOUT PERMISSION IN WRITING FROM THE UNITED STATES GOVERNMENT.

cc: Mr. J. H. Chilcote, Code 63404; Dr. M. C. Shaw (A.T.I.)

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RAYBESTOS-MANHATTAN, INC.  
Asbestos Textile Division  
Manheim, Pa. No. Charleston, S.C.

ASBESTOS CLOTH & THREAD  
TO FEDERAL SPEC. NO. SS-C-00466d 6/10/62

Standard Rolls 40" x 50 Yds. (approx.)  
Cloth 36", 60" or 72" also available

Navy Style	Table No.	Const. No.	R/M Style	A.T.I. Style	Wt Lbs Sq Yd	Texture	Min Av lbs Tensile Warp Fill	List. Pr Sq Yd
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UNDERWRITER'S GRADE PLAIN CLOTHS

3	I	1	10P225	36P10	2.25	18 x 9	90 40	\$5.63
2	II	1	10P140	22P16	1.40	19 x 10	80 40	6.93
3	III	1	*18P075	11P18	.75	21 x 17	40 30	3.23
4	IV	2	10P105	18P10	1.05	20 x 15	65 40	3.43

UNDERWRITER'S GRADE GLASSBESTOS<sup>(R)</sup> CLOTHS

5	V	3	10P111	18P10G	1.10	13 x 9	90 70	3.74
6	VI	4	10P140	22P10G	1.40	18 x 9	125 70	4.76

GRADE AA PLAIN CLOTH

3	VII	1	10P225	36P10	2.25	18 x 9	100 40	6.98
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GRADE AAA PLAIN CLOTHS

1	VIII	1	10P225	36P10	2.25	18 x 9	125 50	8.93
2	VIII	2	10P140	22P16	1.40	19 x 10	80 40	8.99

GRADE AAA METALLIC CLOTHS

1	IX	1	#12M260	42M12	2.60	18 x 9	NS NS	12.60
1	IX	2	*10M275	44M10	2.75	18 x 9	NS NS	13.75
1	IX	3	*10M350	56M10	3.50	18 x 9	NS NS	18.45

SEWING THREAD

II 1011/3 Grade AAA Monel  
III 1020 Commercial Grade Plain Treated & Endless

\* Kapped & Calendered // Nickel Wire Inserted (R) Registered Trademark  
+ Monel Wire Inserted NS Not Specified Raybestos-Manhattan

TERMS 15 10th prox., net 30th prox., on approved credit.  
SHIPMENT from North Charleston, South Carolina.  
FREIGHT prepaid and allowed on shipments of 200 lbs. and over to any destination in the U.S.A. east of Denver, Colo. and also to any destination in Ontario or Quebec, Canada.

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ASBESTOS TEXTILE INSTITUTE  
% PHILADELPHIA TEXTILE INSTITUTE  
SCHOOLHOUSE LANE  
PHILADELPHIA 44, PA.

Please Via

April 30, 1963

Mr. F. N. Gantt, Head,  
Specifications and Standardization Branch  
Technical Materials Div.  
Department of the Navy  
Bureau of Ships  
Washington 25, D. C.

Dear Mr. Gantt:

Enclosed herewith please find a composite of the comments of those members of the Asbestos Textile Institute who were qualified to consider the proposed revisions for Specification SS-C-60266a; Cloth, Thread and Tape - Asbestos.

We trust that these remarks will prove helpful and if we can assist you further in this regard, please feel free to call upon us.

Very truly yours,  
ASBESTOS TEXTILE INSTITUTE  
*Wm. J. Shaw*  
Wm. J. Shaw,  
Executive Director

WJS:g

EXHIBIT D

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April 30, 1963

Proposed Revision  
Interim Federal Specification  
Cloth, Thread, and Taps - Asbestos  
SS-C-00466d (Navy-Ships)

Page 1. Paragraph 1.2.1 Forms, Grades and Styles - It is suggested that under Form 1 - Cloth, Grade U.G., Styles 5 and 6, some clarification be made to indicate that the glass is a filament yarn. The clause might read "asbestos yarn and glass filament yarn plied together".

Page 2. Paragraph 3.3.3. Grade U.G., 80 percent asbestos, blue stripe. - The cloth shall contain not less than 80 percent asbestos and a blue marker thread shall be woven in each selvage.

Page 4. Paragraph 3.3.3.6. Table VI - Grade U.G., style 6 cloth, No. 4

Weight per square yard + 7 1/2 Pounds	Construction Ends per inch ± 1	Picks per inch ± 1	Minimum Average Breaking Strength, Warp	Fill
1.40	18	9	90	40

Page 4. Paragraph 3.3.4.1. Style 1, plain weave. - The cloth shall contain not less than 90 percent asbestos and shall conform to the construction shown in Table VII. A red marker thread shall be woven in each selvage edge.

Page 4. Paragraph 3.3.5. Grade AAA, 95 percent asbestos, green stripe. - The cloth shall contain not less than 95 percent asbestos and a green marker thread shall be woven in each selvage edge.

Page 5. Paragraph 3.3.6.1 Table IX - Grade AAA-II, styles 7, 8, 9.

Style	Weight per Square Yard + 7 1/2	Construction Ends per inch ± 1	Picks per inch ± 1	Composition	Diameter ± .001	Number of Strands
7	2.60	18	9	Soft annealed nickel	.006	1
8	2.75	"	9	Nickel-Copper alloy 58% Ni.	.006	1
9	3.50	18	9	Nickel-Copper alloy 50% Ni.	.008	2

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Page 6 Paragraph 4.2.2 Examination.:- The following sentence shall be to this paragraph - "Rejected lots may be offered again for inspection provided the contractor has repaired or removed all non-conforming material. The Inspector shall again examine samples from resubmitted lots to verify compliance with this specification."

Page 6 Paragraph 4.3 Tests.- The following sentence shall be added to this paragraph - "~~Rejected~~ lots may be offered again for inspection provided the contractor has repaired or removed all non-conforming material. The inspector shall again examine samples from resubmitted lots to verify compliance with this specification."

Page 10 Paragraph 6.2. Ordering data.- Add a fifth subject to be covered  
as follows: (e) Allowable variations in Quantity.

Page 10 Paragraph 6.3.1. Cloth.- Asbestos cloth is normally available in widths of 36", 40" and 60" and in rolls of 50 or 100 yards, providing the weight of the rolls does not exceed 225 pounds each. The tolerance shall be plus or minus 5 yards. Ten percent of the total number of rolls per style in a shipment may contain two pieces.

Page 10 Add a paragraph 6.3.1.1. Quantity Variations. - Variations in quantity to be + 25 minimum. Such variations shall also apply to quantities supplied to individual destinations.

Page 10 Add a paragraph 6.3.2.1. Quantity Variations. - Variations in quantity to be +25% minimum. Such variations shall also apply to quantities supplied to individual destinations.

Page 10 Paragraph 6.3.3. Table.- Add the following sentence to this paragraph - "Ten percent of the total number of rolls may contain two pieces".

Page 10 Add paragraph 6.3.3.1 Quantity Variations.-- Variations in quantity to be + 25% maximum. Such variations shall also apply to quantities supplied to individual destinations.

W. Longmire, Clerk  
B. J. ...  
...  
To  
6.5 -